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Colombia

Bio-Fuels

Annual

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Report Highlights:

The Colombian government issued its policy framework for biofuels production and announced it will temporarily import 500,000 liters of ethanol per day to blend with gasoline to reduce its gasoline consumption and to ease gasoline price increases. Colombia will expand ethanol production to 1.45 million liters from sugarcane and will produce 550 million liters of biodiesel from palm oil by the end of 2009.

Includes PSD Changes: No Includes Trade Matrix: No Annual Report Bogota [CO1] [CO]

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Executive Summary

Colombia's blending requirements are for 10 percent ethanol for gasoline and 5 percent biodiesel for diesel. Current ethanol production made from sugarcane has reached 1.05 million liters per day, which only covers 70 percent of total domestic needs. A new ethanol production plant which also uses sugarcane will begin producing by 2009 and will add 400,000 liters per day to Colombia's production. Pilot programs are underway to produce ethanol from different feedstocks. Biodiesel started to be blended with fossil diesel in 2008 and it is expected to cover a mandatory 5 percent mix, using a total of 500,000 litters per day by the end of 2009. All biodiesel in Colombia is produced from palm oil and the sector expects to be exporting biodiesel by the year 2010.

On March 31, 2008, the Colombian government through the National Council for Social and Economic Policy (CONPES) agreed on a policy framework for biodiesel production. The document includes the creation of a National Biofuels Commission headed by the Ministry of Agriculture, which will allow for tax exemptions for feedstocks used in biofuels for fifteen years. It will also guarantee a minimum price to biofuel producers, develop infrastructure for biofuels transportation, and promote scientific research for alternative fuels.

The Colombian Government announced that it will allow up to 500,000 liters per day in ethanol imports to cover local blend needs and reduce increased gasoline prices.

Production

Currently, Colombia produces ethanol from sugarcane and biodiesel from palm oil. Sugar mills and palm oil producers have the most organized and developed producer associations and scientific research centers. Ethanol production started in late 2005 and palm oil biofuel production in late 2007. The regulations established a blend at 10 percent ethanol with gasoline and 5 percent biodiesel with fossil diesel. Current Ethanol production covers 70 percent of the local needs to comply with the mandated blending and biodiesel would reach the 5 percent only by 2009 if there are no delays in the facilities' installation.

Ethanol: Of the 13 sugar mills in Colombia, 5 of these plants produce the total current ethanol capacity with an output of 1.05 million liters per day. These five plants are owned by sugar mills situated in the Cauca river valley in southwestern Colombia. There is a new project underway called the Riopaila sugar mill that will add 300,000 liters of production per day. An extension is also underway at the Manuelita plant to expand production by 100,000 liters/day, which will bring Colombia's ethanol output up to 1.45 million liters per day by the end of 2009.

Ethanol production/Consumption/trade (million liters)						
	2005	2006	2007	2008*		
Ethanol						
Beginning stocks	0	5	15	10		
Production	29	269	275	299		
Imports	0	0	0	60		
Total supply	29	274	290	359		
Exports	0	0	0	0		
Consumption	24	259	275	335		
Ending stocks	5	15	15	24		
* estimate						

Research and feasibility studies for new sources of ethanol production with different feed stocks, sugar beets, yucca and others have been developed. However, there is concern that there will not be enough supply of these feedstocks to maintain biodiesel production, and this has created a barrier for investment in the ethanol sector. Small-scale pilot production plants operating with the government support have not yet entered into production.

Biodiesel: Biodiesel production started in November last year. The first plant reaches a capacity of 50,000 a year, and belongs to palm oil producer *Oleoflores*. A new plant entered into production in April 2008 that added 36,000 tons per year to the production capacity. Two new plants will enter into operation during the second half of 2008 and two more plants in the beginning of 2009. By next year, Colombia will have a palm oil biodiesel production capacity of 486,000 tons (550 million liters) per year.

Recently updated projections from the Colombian Ministry of Energy estimate domestic biodiesel demand at 839,000 liters per day. Biodiesel in Colombia must comply with current mandatory requirement of 5 percent for biodiesel blending. According to this forecast, coverage of local needs will still be pending by the end of 2009, and their previous projection for Colombia to be able to export biodiesel surpluses has been revised.

Biodiesel production/Consumption/trade in Millions of Liters							
	2007	2008*	2009**				
Biodiesel							
Beginning stocks	0	1	7				
Production	9	146	550				
Imports	0	0	0				
Total supply	9	147	557				
Exports	0	0	0				
Consumption	8	140	540				
Ending stocks	1	7	17				

^{*}estimate **forecast

Pure ethanol in Colombia is produced with sugarcane and processing plants for ethanol are located as part of the production complex of sugar and now ethanol production plants. All Colombian biodiesel is produced from palm oil.

Quantity of Feedstock Use in biofuel Production in Metric Tons						
	2005	2006	2007	2008		
Biodiesel						
Vegetable Oil						
Soybean oil						
Rapeseed Oil						
Palm oil			8,300	211,000		
Coconut oil						
Animal Fats						
Recycled Vegetable oil						
Other						
Ethanol						
Corn						
Wheat						
Sugarcane	386,000	3,586,667	3,666,667	3,986,667		
Sugar beat						
Rye						
Molasses						
Wood						
Cassava/tubers						

Consumption

Colombia has mandated a 10 percent ethanol blend with gasoline and 5 percent blend biodiesel with fossil diesel. Currently, Colombian ethanol production covers only 70 percent of the country's needs and Colombian biodiesel production fulfills only 20 percent of total required mix. In addition, the biodiesel minimum blend requirement will increase to 10 percent by 2010. Current production does not cover the minimum requirements.

Trade

on May 27, the Colombian government announced that it will temporarily authorize the national oil company (ECOPETROL), to import 2,500 barrels per day (500,000 liters), which will supply those regions where the actual local production capacity cannot be covered while the local production expands to cover the local demand. ECOPETROL needs more adequate storage facilities before imports may take place.

Stocks

Since minimum blend requirements are not being covered in Colombia, stocks merely consist of working inventories.

Policy

On March 31, 2008, the Colombian National Council of Economic and Social Policy (CONPES) set the policy and guidelines for promoting the sustainable production of biofuels in Colombia. The CONPES document has the ability to make all its recommendations mandatory.

The main recommendations were:

- 1. To preserve the tax deductions for the biofuels agro-industry for at least 15 more years.
- 2. By June 2008, the ministry of Energy will adjust the price regulation scheme to ensure that a minimum price is paid to producers.
- 3. To create a commission where the Ministry of Agriculture, Ministry of Energy, Ministry of Agriculture, Ministry of Trade, Ministry of Environment and Social Protection and the National Planning Department will all have voting rights. The ministry of Agriculture will be accountable to promote and implement agreed upon policies.
- 4. To define a cost reduction program for biodiesel production.
- 5. To include infrastructure needs for the biodiesel market and the latest developments of Colombian plans to expand infrastructure.
- 6. To include into the regional transporting plans those that will help production and commercialization of biodiesel where there are or will be biodiesel production plants.
- 7. To evaluate the feasibility of building pipelines for transporting biofuels.

With this policy document, the biofuels sector has the policy framework that guarantees a minimum price to producers, tax exemption to feedstocks growers, a minimum price to producers and an overall commitment from the government to support biofuel production and development.

Other Relevant Reports

www.dnp.gov.co www.minminas.gov.co www.fedepalma.org